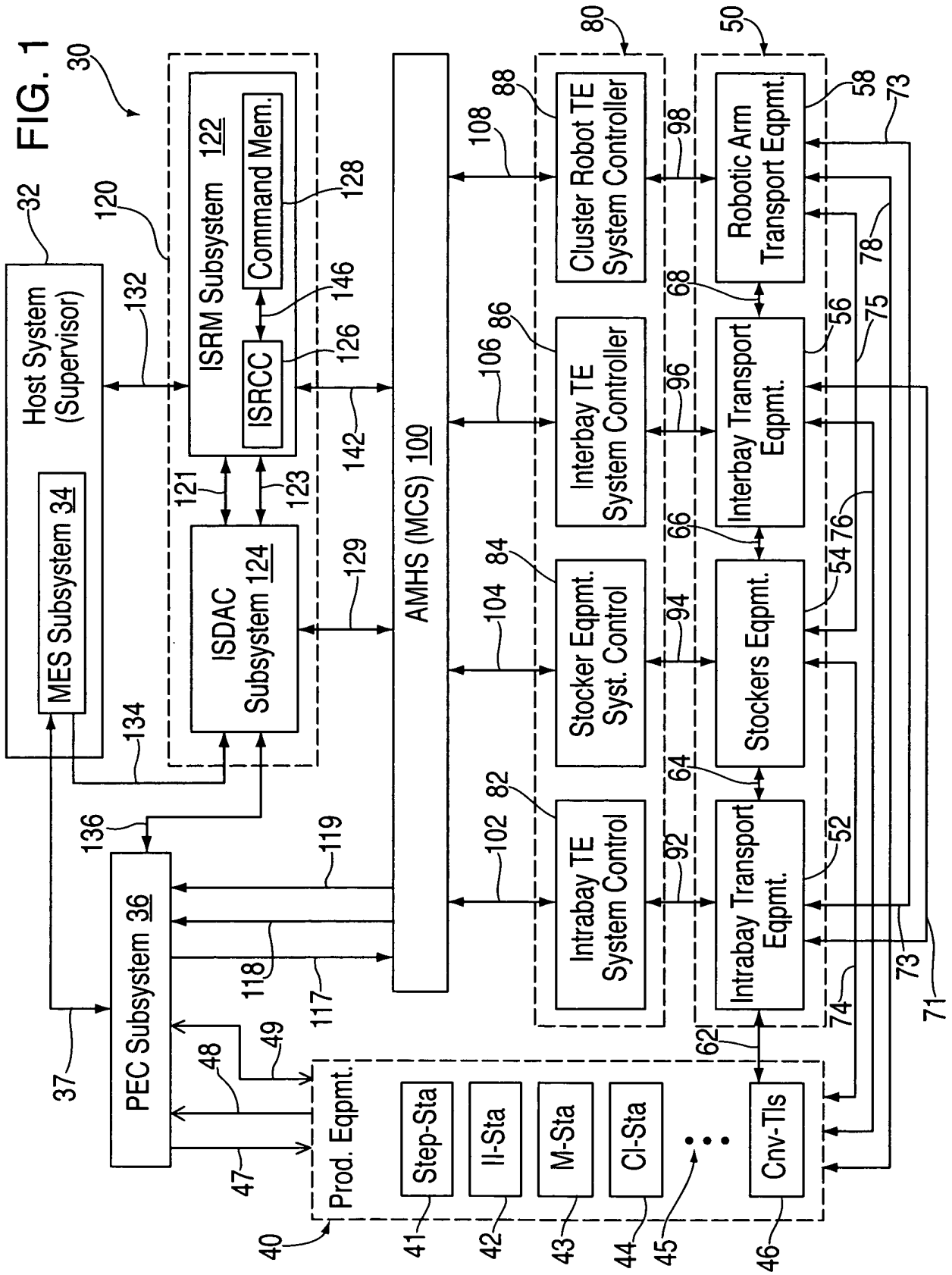
FIG. 1


30
Host System (Supervisor)
32
MES Subsystem 34
ISRM Subsystem 122
Command Mem.
ISRCC
ISDAC Subsystem 124
AMHS (MCS) 100
Cluster Robot TE System Controller
Interbay TE System Controller
Stocker Eqpmt. Syst. Control
Intrabay TE System Control
Robotic Arm Transport Eqpmt.
Interbay Transport Eqpmt.
Stockers Eqpmt.
Intrabay Transport Eqpmt.
PEC Subsystem 36
Prod. Eqpmt.
Step-Sta
II-Sta
M-Sta
CI-Sta
Cnv-Tls
120
121
123
126
128
129
132
134
136
142
146
117
118
119
102
104
106
108
92
94
96
98
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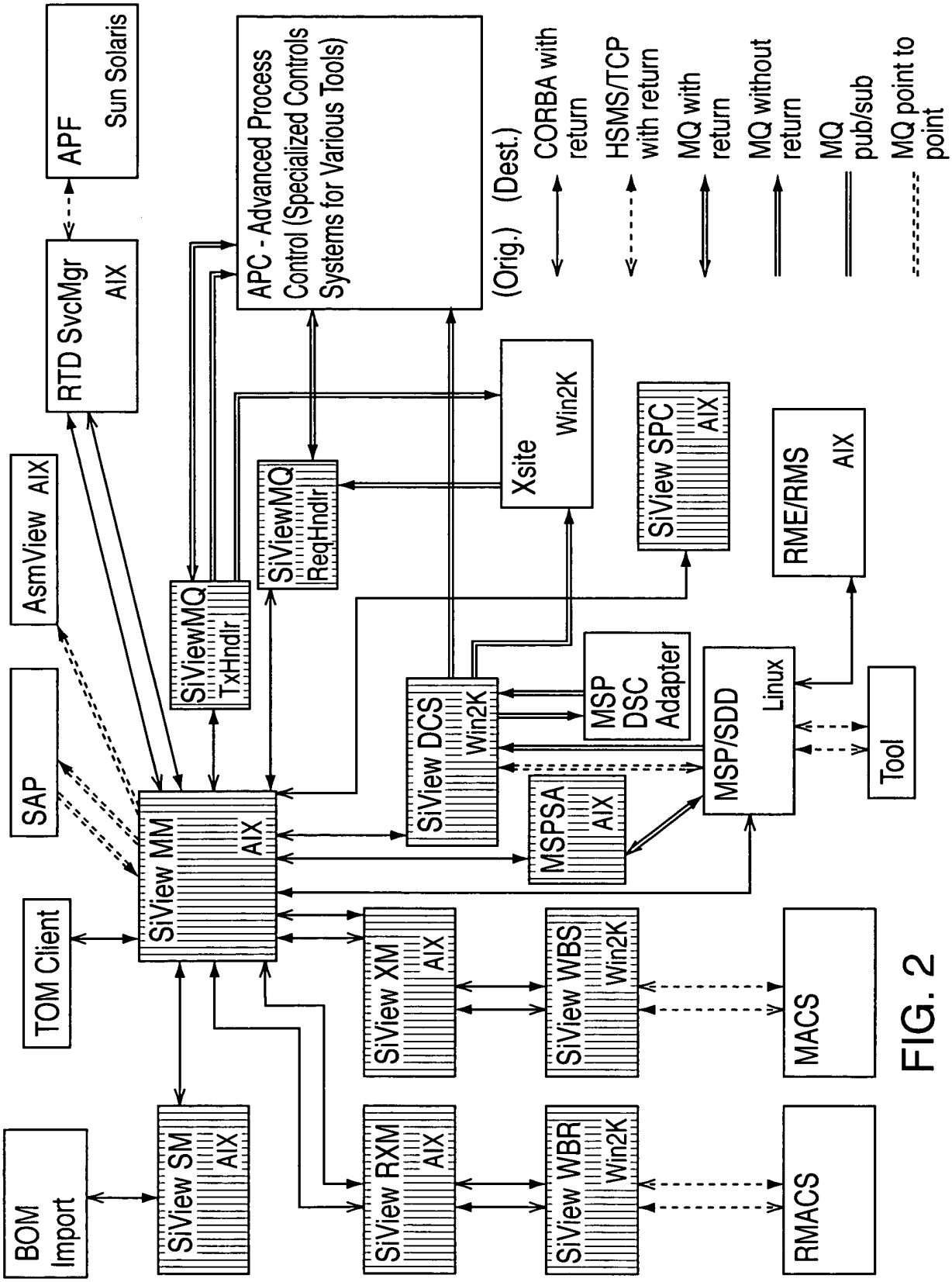
APF
Sun Solaris
RTD SvcMgr
AIX
APC - Advanced Process Control (Specialized Controls Systems for Various Tools)
(Orig.) (Dest.)
CORBA with return
HSMS/TCP with return
MQ with return
MQ without return
MQ pub/sub
MQ point to point
AsmView AIX
SAP
TOM Client
BOM Import
SiView MM AIX
SiView SM AIX
SiViewMQ TxHndlr
SiViewMQ ReqHndlr
Xsite Win2K
SiView SPC AIX
RME/RMS AIX
SiView DCS Win2K
MSP DSC Adapter
MSP/SDD Linux
Tool
MSPSA AIX
SiView XM AIX
SiView WBS Win2K
MACS
SiView RXM AIX
SiView WBR Win2K
RMACS

FIG. 2

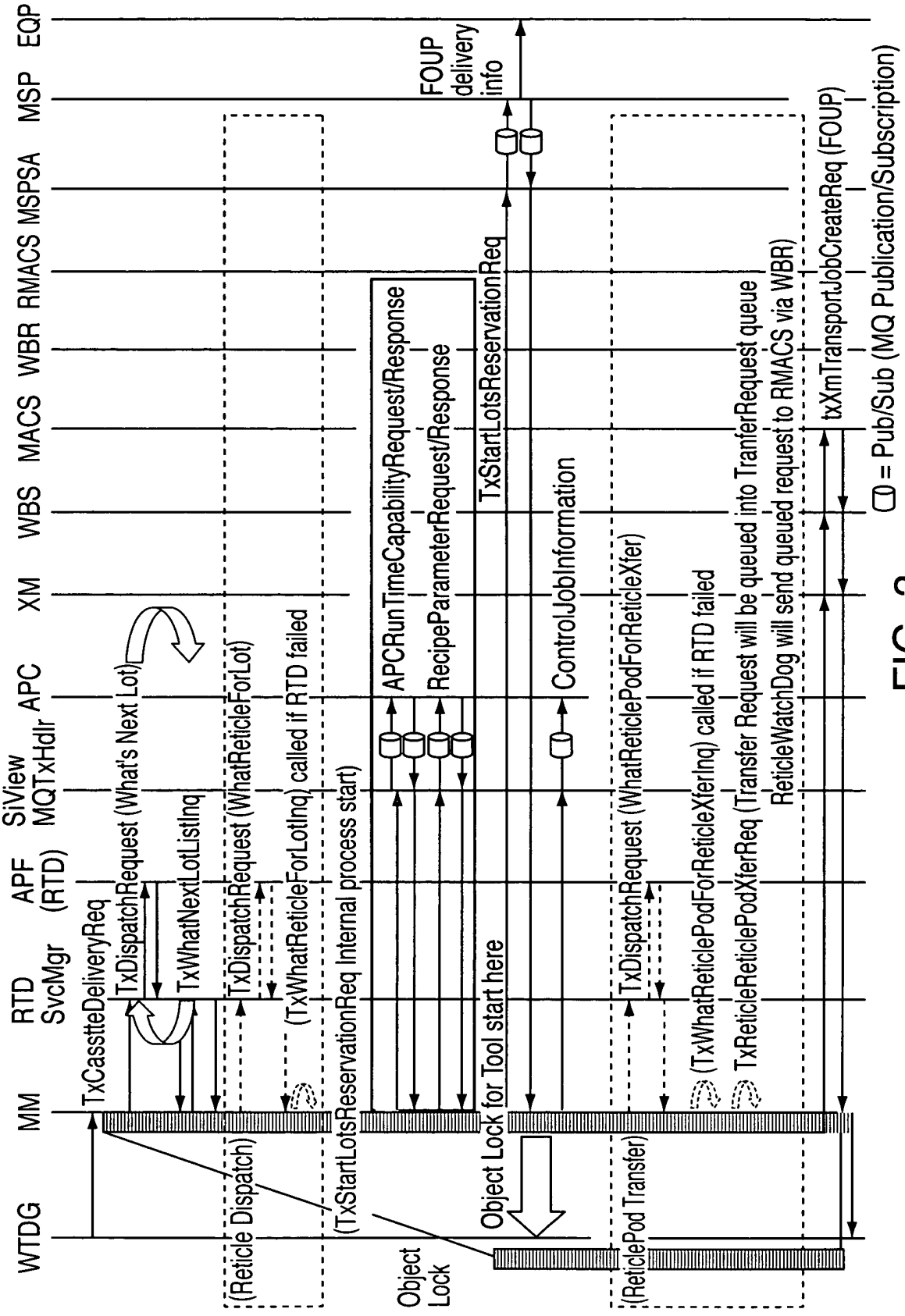
WTDG
MM
RTD SvcMgr
APF (RTD)
SiView MQTxHdlr
APC
XM
WBS
MACS
WBR
RMACS
MSPSA
MSP
EQP
TxCassteDeliveryReq
TxDispatchRequest (What's Next Lot)
TxWhatNextLotListInq
TxDispatchRequest (WhatReticleForLot)
(TxWhatReticleForLotInq) called if RTD failed
(Reticle Dispatch)
(TxStartLotsReservationReq Internal process start)
APCRunTimeCapabilityRequest/Response
RecipeParameterRequest/Response
TxStartLotsReservationReq
FOUP delivery info
Object Lock for Tool start here
ControlJobInformation
Object Lock
TxDispatchRequest (WhatReticlePodForReticleXfer)
(TxWhatReticlePodForReticleXferInq) called if RTD failed
TxReticleReticlePodXferReq (Transfer Request will be queued into TranferRequest queue
ReticleWatchDog will send queued request to RMACS via WBR)
(ReticlePod Transfer)
txXmTransportJobCreateReq (FOUP)
= Pub/Sub (MQ Publication/Subscription)

FIG. 3

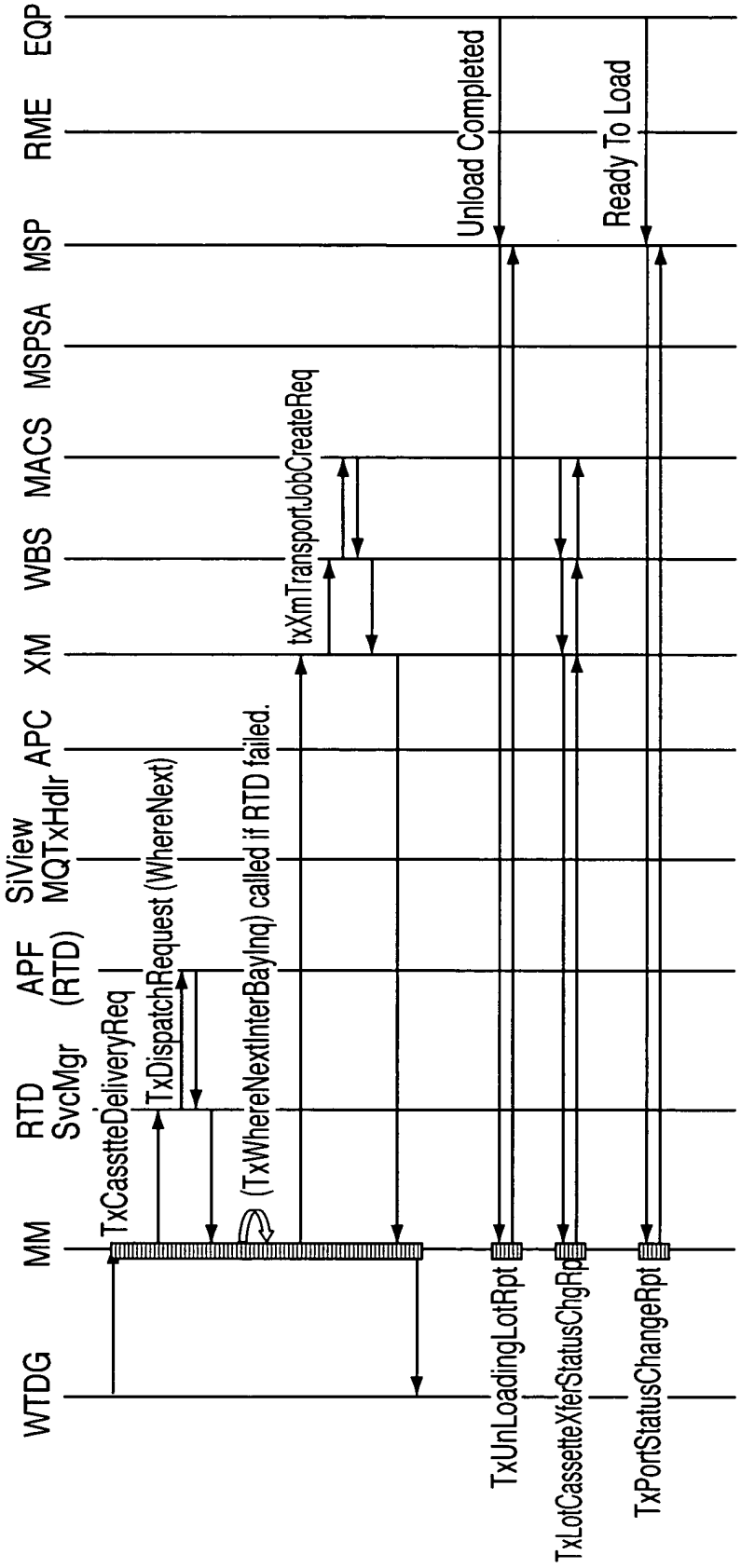
WTDG
MM
RTD SvcMgr
APF (RTD)
SiView MQTxHdlr
APC
XM
WBS
MACS
MSPSA
MSP
RME
EQP
TxCassteDeliveryReq
TxDispatchRequest (WhereNext)
(TxWhereNextInterBayInq) called if RTD failed.
txXmTransportJobCreateReq
Unload Completed
Ready To Load
TxUnLoadingLotRpt
TxLotCassetteXferStatusChgRpt
TxPortStatusChangeRpt

FIG. 4

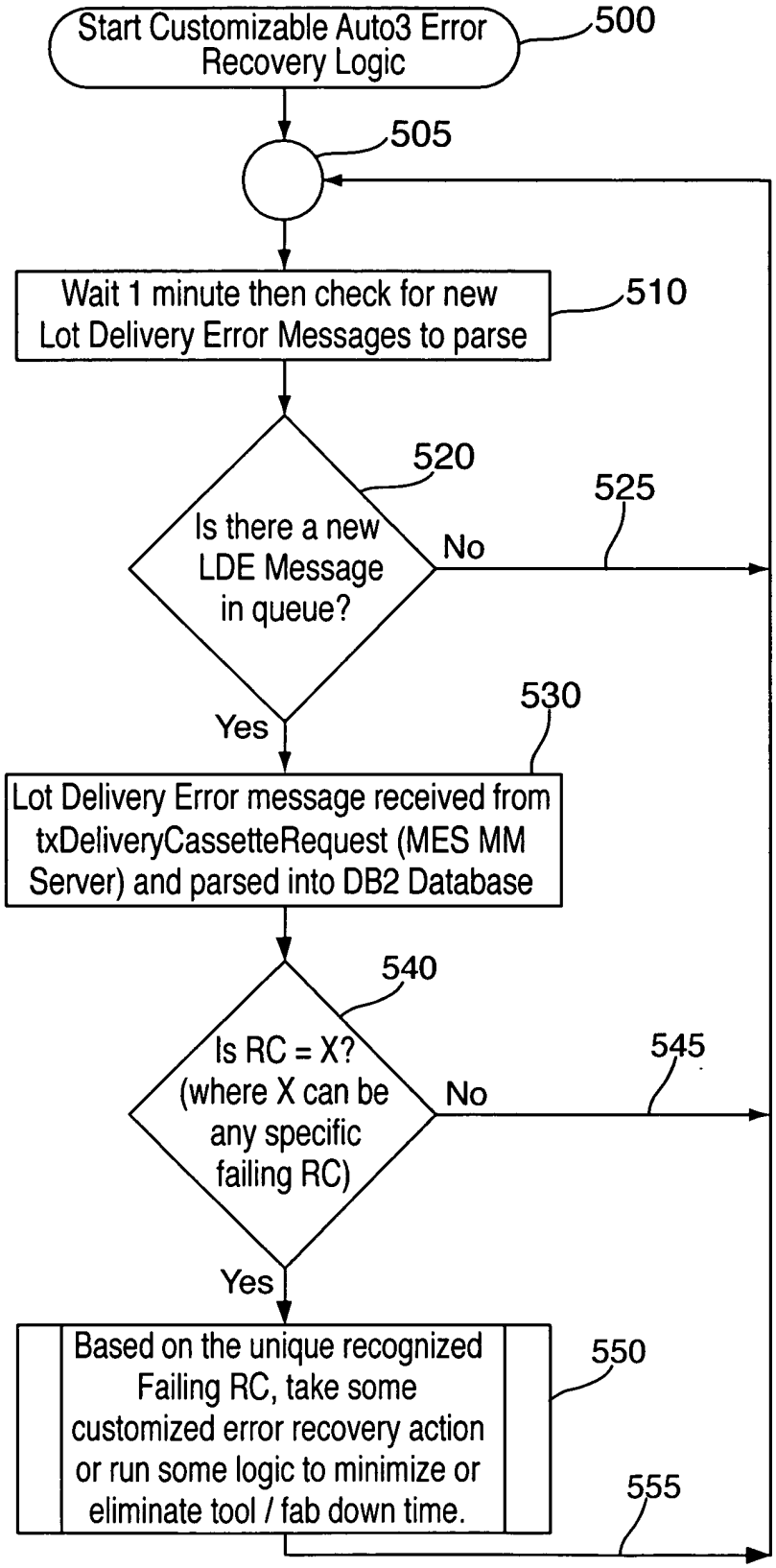
Start Customizable Auto3 Error Recovery Logic
500
505
Wait 1 minute then check for new Lot Delivery Error Messages to parse
510
520
Is there a new LDE Message in queue?
No
525
Yes
530
Lot Delivery Error message received from txDeliveryCassetteRequest (MES MM Server) and parsed into DB2 Database
540
Is RC = X? (where X can be any specific failing RC)
No
545
Yes
Based on the unique recognized Failing RC, take some customized error recovery action or run some logic to minimize or eliminate tool / fab down time.
550
555

FIG. 5

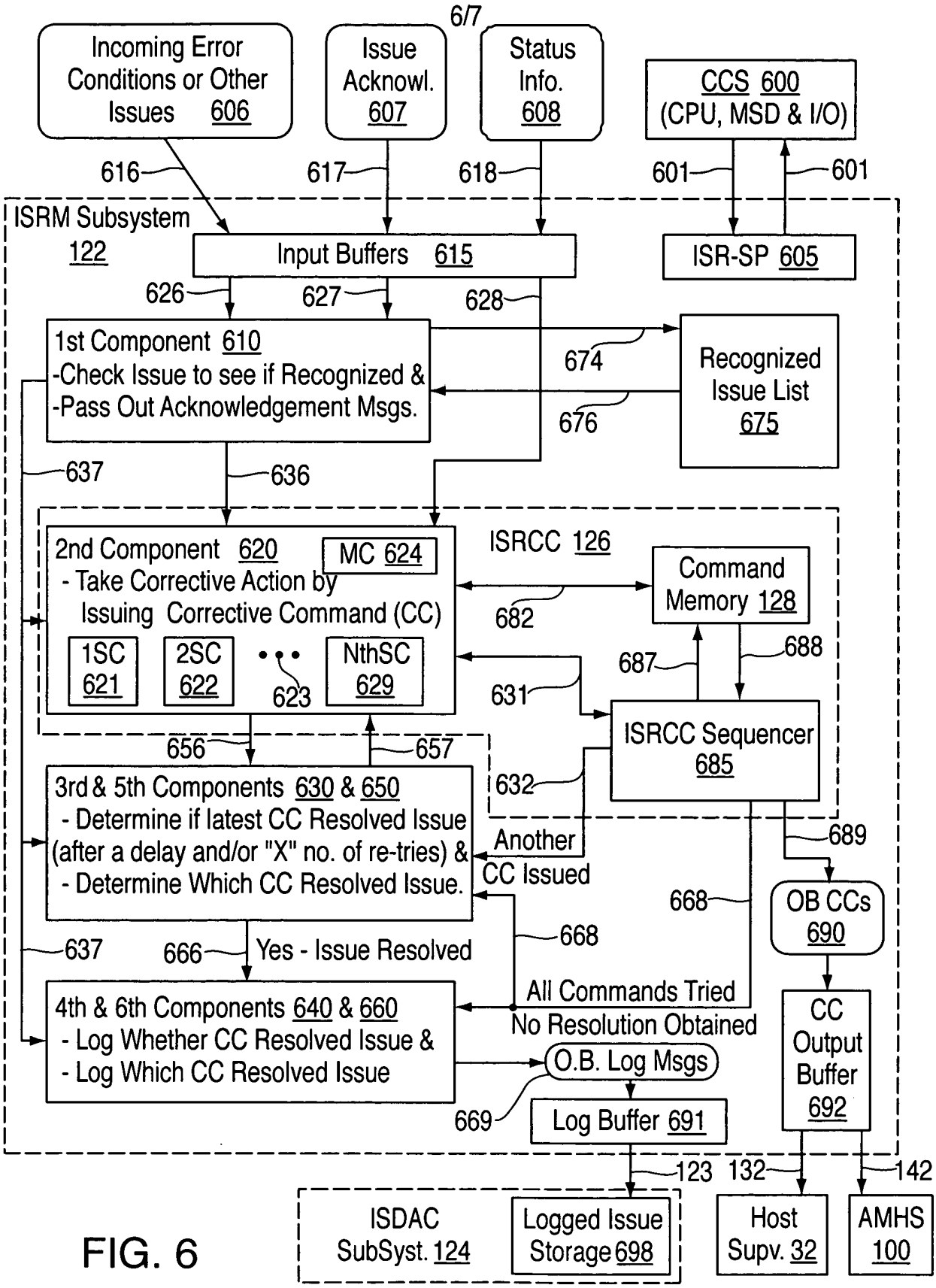
6/7
Incoming Error Conditions or Other Issues 606
Issue Acknowl. 607
Status Info. 608
CCS 600 (CPU, MSD & I/O)
616
617
618
601
601
ISRM Subsystem 122
Input Buffers 615
ISR-SP 605
626
627
628
1st Component 610
-Check Issue to see if Recognized &
-Pass Out Acknowledgement Msgs.
674
676
Recognized Issue List 675
637
636
2nd Component 620
MC 624
- Take Corrective Action by Issuing Corrective Command (CC)
1SC 621
2SC 622
NthSC 629
623
ISRCC 126
682
Command Memory 128
687
688
631
ISRCC Sequencer 685
656
657
632
3rd & 5th Components 630 & 650
- Determine if latest CC Resolved Issue (after a delay and/or "X" no. of re-tries) &
- Determine Which CC Resolved Issue.
Another CC Issued
689
668
OB CCs 690
668
637
666
Yes - Issue Resolved
4th & 6th Components 640 & 660
- Log Whether CC Resolved Issue &
- Log Which CC Resolved Issue
All Commands Tried
No Resolution Obtained
O.B. Log Msgs
669
Log Buffer 691
CC Output Buffer 692
123
132
142
ISDAC SubSyst. 124
Logged Issue Storage 698
Host Supv. 32
AMHS 100

FIG. 6

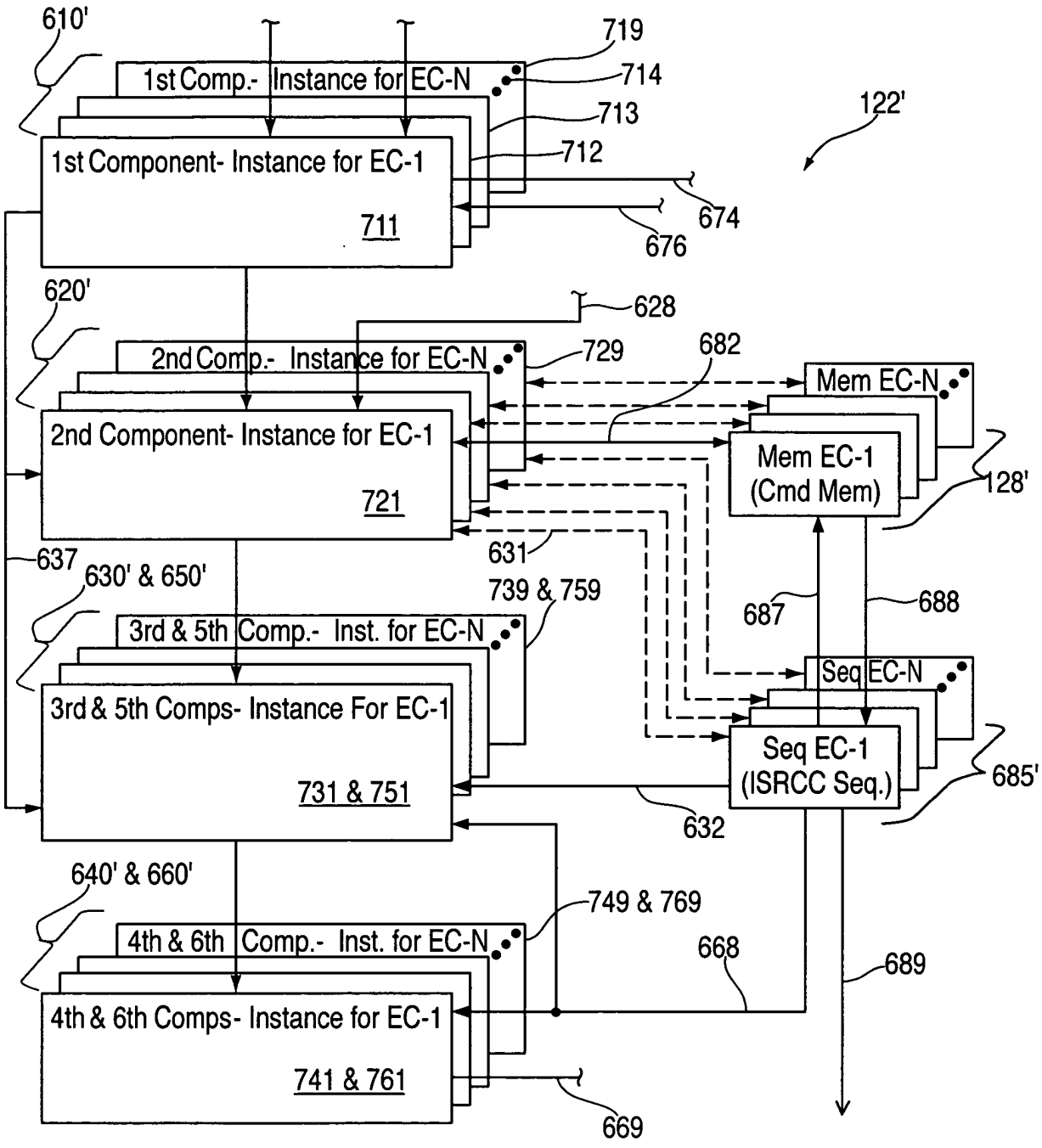
610'
719
1st Comp.- Instance for EC-N
714
713
122'
1st Component- Instance for EC-1
712
711
674
676
620'
628
2nd Comp.- Instance for EC-N
729
682
Mem EC-N
2nd Component- Instance for EC-1
721
Mem EC-1
(Cmd Mem)
128'
631
637
630' & 650'
739 & 759
687
688
3rd & 5th Comp.- Inst. for EC-N
Seq EC-N
3rd & 5th Comps- Instance For EC-1
731 & 751
Seq EC-1
(ISRCC Seq.)
685'
632
640' & 660'
749 & 769
4th & 6th Comp.- Inst. for EC-N
668
689
4th & 6th Comps- Instance for EC-1
741 & 761
669

FIG. 7